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Title : Riverine habitat preferences of botos (*Inia geoffrensis*) and tucuxis (*Sotalia fluviatilis*) in the central Amazon, Brazil.

Category : Ecology

Student : Not Applicable

Preferred Format : Either Oral or Poster Presentation

Abstract : The distribution and density of the Amazon's two contrasting endemic dolphins - Boto and Tucuxi - were examined on two adjoining large Amazonian rivers. Using a 17 m riverboat as a sightings platform, strip transects were used to cover areas within 150 m of the river margin, and line transects in all other areas. The objective was to determine the relative importance of 8 recognisable riverine habitats, and their likely use to these two contrasting dolphins. Each habitat was classified as 'low current' (characterised by protection from, of, riverine flow), or 'high current' (unimpeded flow). Seven different habitats were identified along river margins: bank, confluence, meeting of the waters, igapó, beach, bay and floating vegetation. The last was simply 'river centre', i.e. apparently featureless areas of water more than 150m from any land or emergent vegetation.

Highest densities of both dolphins occurred near the margin, and lowest in the centre of rivers. Boto and tucuxi differed in some elements of habitat choice, but they shared a preference for areas with diminished current and where two channels joined. These areas offer higher fish densities and lower energetic costs. Neither species favoured the two most common edge types in this region - mud banks and flooded forest margins. Overall, the most preferred habitat type was the least common, and known as 'meeting of the waters'. In these areas a channel of sediment-rich white water meets one carrying acidic black water; the resultant mixing produces particularly productive, and obviously attractive, conditions for dolphins. It is no coincidence that the habitat characteristics favoured by Amazonian dolphins - high fish density and low current - are also those sought by Amazonian fishermen. The main fishing gear in the study area is a large mesh top-set monofilament gillnet; dolphin entanglement in such gear is common, though as yet unquantified.